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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/649,439 | 08/27/2003 | Uma Arun | GP-303940 (2760/126) | 5178 |

7590 03/07/2007
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| EXAMINER |
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LENNOX, NATALIE

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| ART UNIT | PAPER NUMBER |
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2609

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 03/07/2007 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/649,439

Applicant(s)

ARUN, UMA

Examiner

Natalie Lennox

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 8-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

With respect to claims 8-14, applicant claims a computer readable medium storing computer program for a speech recognition system. Further, the applicant claims computer readable code. This subject matter is not limited to that which falls within a statutory category of invention because it is not limited to a process, machine, manufacture, or a composition of matter. This is a practical application in the technical arts, however the computer readable code as claimed is simply functional descriptive material, and thus a computer program *per se*.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 8-12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over French-St. George et al. (US Patent 6,012,030) in view of Suominen (US 2003/0055655).

As per claims 1, 8 and 15, French-St. George et al. teach a method, computer readable medium, and system for speech recognition that adjusts to premature enunciator commands, comprising:

activating the speech recognition system (Col. 9, lines 12-14, *when speech recognition is enabled, the input mode is checked to determine whether the speech recognition is on*); and receiving speech input from a user before the system is ready to receive speech input (as shown in Fig. 10 and described in Col. 10, lines 57-60, *Fig. 10 sets out an example of an error recovery route for a time out failure because input was received to late or too early...*), but French-St. George et al. doesn't disclose adjusting the system to allow for earlier detection of user speech input. Suominen teaches an activation signal S_A that may be asserted, with appropriate coding, whenever a change in the activation of speech recognition is desired (Suominen's paragraph [0083], first lines). It would have been obvious to use Suominen's feature of adjusting the activation signal for French-St. George et al.'s method, computer readable medium, and system for speech recognition because Suominen provides methods and systems for speech recognition that can be activated at any time.

As per claims 2, 9, and 16, French-St. George et al. in view of Suominen teach a method, computer readable medium and system for speech recognition according to claims 1, 8, and 15, wherein the speech recognition system is activated selectively by

the user (French-St. George's Col. 6, lines 1-12, *mobile telephone unit comprises body, display screen, touch sensitive buttons, conventional keypad, and a speaker associated with the speech interface to providing speech prompts for the various modes of interaction which may be selected by a user. Also in Col. 6, lines 24-26, for example the user may pick up the mobile phone, thus activating the unit, and turning on all default input/output modalities.*).

As per claims 3, 10, and 17, French-St. George et al. in view of Suominen teach a method, computer readable medium and system for speech recognition according to claims 1, 8, and 15, wherein the activation of the speech recognition system is followed by informing the user that the system is ready to receive input and a listening period wherein the speech recognition system is able to receive speech input (French-St. George's Col. 1, lines 25-30, *speech interface prompts the user when to speak by providing a speech prompt... After the prompt, a speech recognizer is turned on for a limited time window, during which time the user may respond.*).

As per claims 4, 11, and 18, French-St. George et al. in view of Suominen teach a method, computer readable medium and system for speech recognition according to claims 1, 8, and 15, further comprising the speech recognition system receiving user voice input before the system has started the listening period, determining the user as a premature enunciator and starting the listening period at an earlier predetermined time interval (French-St. George's Fig. 10 shows the feature of "SPOKE TOO SOON" when user's input is received before the listening period, also the fact that the user "SPOKE TOO SOON" after the query "Spoke to late?" determines the user as a premature

enunciator. For French-St. George's system, as shown in Fig. 10, after a time out failure is established the system proceeds to a manual input, however, Suominen, in paragraph [0083], teaches that the activation signal may be asserted, with appropriate coding, whenever a change in the activation of speech recognition is desired. It would be obvious to one having ordinary skill in the art that the signal may be changed to start at an earlier time interval.

As per claims 5, 12, and 19, French-St. George et al. in view of Suominen teach a method, computer readable medium and system for speech recognition according to claims 4, 11, and 18, wherein the earlier listening period begins 50 to 100 ms before the speech recognition system informs the user of its readiness to receive input (It would have been obvious to one having ordinary skill in the art to make a decision choice for an appropriate time frame for the earlier listening period).

4. Claims 6, 7, 13, 14, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over French-St. George et al. (US Patent 6,012,030) in view of Suominen (US 2003/0055655) as applied to claims 1, 8, and 15 above, and further in view of Dudemaine et al. (US Patent 6,195,634).

As per claims 6, 13, and 20, French-St. George et al. in view of Suominen teach a method, computer readable medium and system for speech recognition according to claims 1, 8, and 15, but don't disclose the speech recognition system filtering sound overlays from user commands. However, Dudemaine et al. teaches a word endpoint detection algorithm that removes silence before, after, and in the middle of the speech signal, and filters out unwanted background noise in order to expedite the speech

recognition stage (Col. 5, lines 41-46). It would have been obvious to one having ordinary skill in the art to use the feature of this word endpoint detector algorithm for French-St. George et al.'s method, computer readable medium, and system for speech recognition as modified by Suominen because Dudemaine et al. provides an audio recognition process comprising a speech recognition process.

As per claims 7 and 14, French-St. George et al. in view of Suominen and in further view of Dudemaine et al. teach the method and computer readable medium according to claims 6 and 8, further comprising processing filtered speech input through the speech recognition system (Dudemaine et al.'s Col. 5, lines 43-47, *algorithm removes silence before, after, and in the middle of the speech signal, and filters out unwanted background noise in order to expedite the speech recognition stage... Speech recognition is the fourth stage of the process.*).

Conclusion

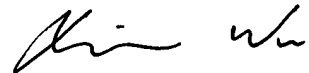
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natalie Lennox whose telephone number is (571) 270-1649. The examiner can normally be reached on Monday to Friday 7:30 am - 5:00 pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xiao Wu can be reached on (571) 272-7761. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NL 03/01/2007



XIAO WU
SUPERVISORY PATENT EXAMINER